**Remarks/Arguments:**

Claims 1-3, 8-13, 27-29 and 34-39 are pending. Claims 6, 7, 32, and 33 have been cancelled and the language thereof incorporated into claims 1 and 27, respectively. The remaining claims are cancelled.

**Examiners Rejections**

Claims 1 and 27 are the only independent claims currently in the application. The Examiner has rejected both claims 1 and 27, as well as claims 2, 3, 6-9, 28, 29 and 30-35 as being unpatentable over Andrieu *et al.* in view of Andrews *et al.* Claims 10-12 and 36-38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrieu in view of Andrews, as applied to claims 1 and 27 above, and further in view of Kite, III *et al.* Claims 13 and 39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Andrieu *et al.* in view of Andrews *et al.*, further in view of Hoyt *et al.*

**The Law Requires All Elements to be Found in the Prior Art and All Modifications or a Combination of References to be Predictable, Not Hindsight**

The guidelines for the analysis of the obviousness question begin with 35 U.S.C. § 103, which states that a patent claim is obvious, and thus invalid, when the differences between the claimed subject matter and prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." The obviousness analysis is based on several underlying issues of facts, namely: (1) the scope and content of the prior art; (2) the level and skill of a person of ordinary skill in the art; (3) differences between the claimed invention and the teachings of the prior art; and (4) the extent of any objective indicia of nonobviousness. Graham v. John Deere Company, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed. 2d 545 (1966).

When obviousness is based on the teaching of multiple prior art references, the movant (Examiner) must also establish some reason, referred to as a suggestion, teaching, or motivation (TSM) that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed. Tech Air, Inc. v. Denso Manufacturing Mfg. Mich. Inc., 192 F.3d 1353, 1359-1360 (Fed. Cir. 1999). While the recent Supreme Court decision of KSR

International Co. v. Teleflex Inc. et al., 127 S. Ct. 1727, 550 U.S. _____ (2007) has held that this motivation does not necessarily have to be explicit in the cited prior reference itself, it still must be established by the movant (Examiner).

This reason or suggestion for motivation to combine prior art references may be found either explicitly or implicitly: (1) in the prior art references themselves; (2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or (3) from the nature of the problem to be solved, leading inventors to look to references relating to possible solutions to that problem. Rulz v. AB Chance Co., 234 F3 654, 655 (Fed. Cir. 2000). Both the Federal Circuit and the Supreme Court consistently warn that the proper analysis of obviousness should avoid hindsight basis. See Graham. The Examiner or movant must identify a reason why a person of ordinary skill in the art would have combined prior art. Absent this identification or reasoning, a Court must infer that the Examiner, Board, or Trial Court used hindsight. In re Kahm, 441 F3 977,986 (Fed. Cir. 2006).

The temptation to engage in hindsight is especially strong with seemingly simple mechanical inventions. This is because combining prior art references without establishing such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability/the essence of hindsight. In re Dembiczak, 175 F.3d 998, 999 (Fed. Cir. 1999). Therefore, the CAFC has consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings in the particular manner claimed. In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000). In other words, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the matter claimed. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

In determining whether or not there is a proper basis for combining or modifying references, or whether the Examiner has improperly engaged in hindsight, the Federal Circuit and its predecessor court, the CCPA, has expressed certain guidelines. Paramount among these

principles is that All Claim Limitations Must Be Met. After all is said and done, even if the references can be properly combined, all the limitations must be met. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Where claimed limitations are absent or ignored, obviousness is not established.

In the recent United States Supreme Court case of KSR International Company v. Teleplex, Inc., et al., 127 S.Ct. 1727 (207) the Supreme Court reaffirmed the familiar framework for determining obviousness as set forth in Graham v. John Deere Company, 383 U.S.1 (1966). Further, in KSR, supra, it is true the Supreme Court particularly emphasized the need for caution in granting a patent based on a combination of elements which elements could be found in the prior art. However, the Supreme Court cautioned against hindsight bias and ex post reasoning. The KSR decision has resulted in the issuance of a set of guidelines for determining questions of obviousness. See Examination Guidelines for Determining Obviousness under 35 U.S.C. § 103 in view of the Supreme Court decision in KSR, International Co. v. Teleflex, Inc., Federal Register/Volume 72, pages 57526-57535.

**The Invention Represents a New Approach**

The invention is directed toward a protective covering for fuel hoses, electrical cables, hydraulic hoses, ropes, tethers, lanyards, and the like found in relatively harsh environments such as airports, docks and construction sites. Such sites include abrasive surfaces, moisture, chemicals and gasoline. Toward this end the inventors developed a cover system for the lengths of material that is a single layer, lightweight fabric formed substantially of yarns formed primarily from long chain polyethylene fibers having a tensile modules equal to or greater than 150 grams/denier and a tenacity equal to or greater than 7 grams/denier. The aforesaid yarns have a denier between 400 and a 1000, and the fabric is formed with a warp and fill density of between 30 and 36 ends per inch. This fabric provides the lightweight, single layer, woven fabric from which the protective covering is made. As a result of this material and the weaving specifications, the fabric is abrasion and cut resistant, moisture resistant, chemical resistant, and resists heat build-up as a result of relative movement between the cover and the length of material around which the cover is placed. The product of the invention thus recognizes and addresses a problem never recognized or addressed before, as far as the prior art is concerned.

**The Prior Art is Different**

A) The Andrieu *et al.* '337 Patent is a different fabric which addresses a different need. It is described as a woven, knitted, or braided wrap around protective sleeve for cable, hoses, etc. While it may appear, at first glance, to be the type of protective cover that addresses the concerns of the present invention, it is not. A study of the Field Of The Invention and the Background Of The Invention indicates the Andrieu *et al.* sleeve is intended to cover electrical cables and hoses and the like in engine and machinery compartments to protect the electrical cables and hoses from heat and abrasion found therein. *See* col. 1, lines 5-48. It is not the type of sleeve intended for airports, docks, ships, construction sites and like environments which require abrasion and cut resistance, moisture resistance, chemical resistance, and resistance to heat build-up as a result of relative movement between the cover and the length of material, yet still is lightweight .

More specifically, the Andrieu *et al.* sleeve is not:

1. Formed of high performance, high tensile strength (150 grams/denier), high tenacity (7 grams/denier) yarns, particularly high density polyethylene or long chain polyethylene. It is formed simply of polyester and similar materials that are not considered to be high performance.

2. The Andrieu *et al.* reference does not teach a warp and fill density of 30-36 ends/inch, and therefore, there is no disclosure of anything that would make the cover resistant to heat build-up as a result of relative movement between the sleeve and the cables and hoses there beneath. For that matter there is no relative movement between the sleeve and the cables of this reference.

3. There is no polyethylene or EVA film bonded to the outer surface to make the cover system moisture resistant, as well as resistant to the chemicals and lubricants encountered in the environment for which it is intended.

B) The Andrews *et al.* '223 Patent describes that a composite fabric having (1) an abrasive outer primary layer of such abrasive yarns as wire, fiberglass, combinations of the two, grit based fibers, or bi-component yarns (core wrapped with some type of yarn such as polyester) and (2) an inner primary layer formed of an inherently cut resistant yarn such as those containing long chain polyethylene (ultra high molecular weight) fibers. This double layer fabric

(composite fabric) is intended for use in various items of cut-resistant apparel. There is a brief mention of such fabrics as well as being formed into tubular articles such as jacketing for tubing, hose and wire. There is no specific teaching that it is a sleeve or covering that loosely fits around hoses, cables, ropes and the like to protect them from the harsh environment of airports, docks, ships, construction sites, and the like which require a fabric that is lightweight, abrasion and cut resistant, moisture resistant, chemical resistant, and resistant to heat build-up as a result of relative movement between the cover and the length of material. Fabrics formed of yarns primarily including long chain polyethylene are approximately 1/3 the weight of fabrics of a similar size formed of conventional polymeric yarns.

More specifically, the Andrews *et al.* reference does not:

1. Have a clear description of a protective cover that loosely covers or encases cables, hoses, and the like;

2. No clear description of a sleeve with open ends that fit loosely around or encase a cable, hose, or the like;

3. No disclosure of the use of long chain polyethylene yarns having a denier of 400-1000. The Spectra yarn mentioned as the inner primary layer has a denier of 1600;

4. There is no disclosure of a woven fabric formed with a 30-36 yarns/inch warp and fill density;

5. There is no disclosure of the fabric being resistant to heat build-up as a result of relative movement between the cover and length of material; and

6. The Andrews *et al.* fabric is definitely not lightweight as it includes both a primary outer layer and a primary inner layer. While the inner primary layer is disclosed as possibly being formed of long chain polyethylene fibers, the outer layer is a relatively heavy yarn such as fiberglass, steel wire, or combinations thereof.

Again, this would be a very, very, heavy fabric.

**Prima Basic Case of Obviousness Not Shown**

Apparently, the Examiner's analysis is in line with Rationale B of the Examination Guidelines, T. page 57530. However, the Examiner's analysis fails for two reasons:

a. First, according to Sections (1) and (2) of Rationale B, there must be a finding that the prior art contains a product or method that differs from the claimed product or method in the omission of some element or step, and that this element or step is found in the art. In this regard, the Examiner found the Andrieu *et al.* reference was lacking a disclosure of a protective cover made of yarn formed of primarily long chained polyethylene fibers having a tensile modulus equal to or greater than 150 g/denier and the tenacity equal to or greater than 7 g/denier, wherein the yarns are cut and tear resistant and have thermoplastic film selected from the group of polyethylene and ethyl vinyl acetate film bonded to the outer surface thereof, nor did the Andrieu *et al.* reference have a protective cover being made of material fabric having a weight of between about 5 and 8 ounces per square yard nor a fabric density of between 30 and 36 inches per inch. Incidentally, this is just about the entirety of the substance of claims 1 and 27. The Examiner then found that Andrews *et al.* contained the disclosure of all the missing elements. Here the Examiner is in error for the following reasons:

a. Neither Andrieu *et al.* nor Andrews *et al.* discloses a cover formed of a woven, single layer of fabric made out of yarns formed primarily of long chain polyethylene fibers. In this regard, Andrews *et al.* is not a single layer.

b. Neither reference shows a cable and hose cover formed of a fabric made from yarns formed primarily of long chain polyethylene fibers and woven with a warp and fill density in the range of 30-36 ends per inch.

c. Neither reference shows a fabric made from yarns formed primarily of long chain polyethylene fibers and being of a denier in the range of 400-1000. It should be noted that the Andrews *et al.* patent yarns is formed of long chain polyethylene fibers which have a denier of 1600, however, there is no disclosure of any long chain polyethylene fibrous yarns of any other denier.

Thus, the prior art, even if properly combinable (and it is not) does not show that all of the elements of the claims 1 and 27 (and therefore the remainder of the defendant claims can be found in the art.)

2. Secondly, in accordance with Section (3) of Rationale B (page 57530 of the Examination Guideline), there must be a finding that a person of ordinary skill in the art could have substituted one known element for another, and the results would have been predictable. First, the idea that a lightweight, abrasive resistant, moisture resistant, chemical resistant, protective cover for cables, hoses, ropes and the like used in airports, docks, ships, construction sites and similar environments was first recognized by the inventors of the invention claimed in the instant application as they set out to develop this cover, they also determined that the slippage of the cables, hoses, etc. within the cover generated heat, and that could also be a problem. Thus, in addition to the selection of the polyethylene or EVA coated fabric in turn formed of primarily long chain polyethylene yarns, the warp and fill density also became an aspect to be addressed. The result is the sleeve and the cover systems claimed in independent claims 1 and 27.

In the first place, the prior art does not recognize that the situation addressed by the invention even exists. The Andrieu *et al.* protective cover is for an entirely different environment that has a different purpose, i.e., engine compartments in which the wire cables or hoses need to be kept neatly bundled so as to prevent damage from heat and moving parts. *See* col. 1, lines 15-20 and lines 47-54. In the present invention, the cables, hoses, and the like are dragged around over rough surfaces and covered with chemicals, oils, and water. The Andrews *et al.* fabric, on the other hand, is primarily intended for use in a cut fast resistant protective article of apparel. *See* col. 1, lines 19-22 and col. 2, lines 35-40.

It is acknowledged that the Andrews *et al.* reference notes the fabric can also be used in jacketing for tubing, hose, and wire, however, it does not explain how, or even whether the "jacketing" would be a sleeve or would be the wall of the tubing, hose, or wire itself. In any event, it is very, very heavy. Note the primary layer is composed of an inner primary layer and an outer primary layer (col. 2, lines 44-46), each having distinct abrasion resistant or cut-resistant characteristics. The outer primary layer is made of a yarn composed of an abrasive material such

as fiberglass and/or wire, or by component yarns. The inner layer is formed of the high molecular weight polyethylene (described here as 1600 denier). *See* col. 2, line 51 – col. 3, line 14. The result is a very heavy fabric, certainly not the lightweight single layer fabric formed of 400-1000 denier yarn as claimed.

Thus, it is apparent that Andrieu *et al.*, as a primary reference, does not recognize the problem being addressed in the present invention. Providing a protective sleeve for cables or hoses designed for use on the inside of an engine or machinery compartment in which the moving parts may damage the cable or hose is a far cry from a protective sleeve for cables, hoses, ropes and the like in the environment described in the application. Such an environment and application requires that the sleeve have entirely different features. It is significant that these are the features that are claimed.

Secondly, even if a person of ordinary skill in the art, having Andrieu *et al.* in front of him or her, had been aware of the problem, this person would not have been led to consider such a heavy, bulky fabric as described by Andrews *et al.* It is doubtful that Andrews *et al.* fabric could have even been substituted for the Andrieu *et al.* fabric, and certainly the successful results of the substitution would not have been predictable.

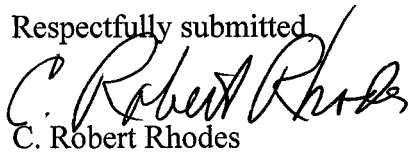
3. Finally, as all of the defendant claims include all of the limitations of claims 1 or 27, and since, as described above, a *prima facie* case of obviousness has not been made out for these claims, the remainder of the dependant claims should be allowed for the same reasons as set forth above.

## Conclusion

In view of the amendments to claims 1 and 27, and the reasons set forth above, the rejection of claims 1-3, 8-13, 27-29, and 34-39 should be withdrawn and the case passed to issue.

Based upon the foregoing reply and the amendment, Applicants respectfully submit the application is now in condition for an immediate allowance with claims 1-3, 8-13, 27-29, and 34-39, and such action is requested. If any matter remains unresolved, Applicant's counsel would appreciate the courtesy of a telephone call to resolve the matter.

Respectfully submitted,



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Date: June 5, 2008